

# PSD Technology Transfer

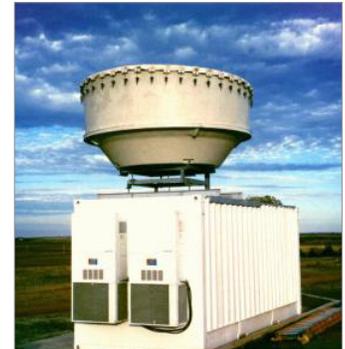


**For more information, contact:**

Richard Lataitis

(303) 497-6523

Email: [Richard.Lataitis@noaa.gov](mailto:Richard.Lataitis@noaa.gov)



The NOAA Earth System Research Laboratory's **Physical Sciences Division (PSD)** and its predecessor organizations have for more than four decades developed, applied, and transferred to the commercial sector a wide variety of atmospheric and oceanic measurement technologies. That tradition continues today with the development, application, and transfer of environmental measurement technologies associated with our water cycle, marine and atmospheric boundary layer, and Arctic research. PSD transfers technologies via the patent and licensing process, through Cooperative Research and Development Agreements, and by serving as an incubator for new commercial endeavors.



## Patents (41)

- Detection of Transient Signals in Doppler Spectra (2011)
- Combination N-Way Power Divider/Combiner and Noninvasive Reflected Power Detection (2004)
- Operational Bright-Band Snow Level Detection Using Doppler Radar (2003)
- Icing Hazard Avoidance System Using Dual Polarization Airborne Radar (2002)
- Passive Polarimetric Microwave Radiometer for Detecting Aircraft Icing Conditions (2002)
- Hexagonal-Annulus Phased-Array Antenna for Radar Wind Profiling on Moving Platforms (2002)
- Wavelet Based Sodars (2000)
- Method for an Autonomous Cloud Radar (2000)
- Scatterometer with Adaptable Spatial Resolution (2000)
- + 32 more



## Companies Formed (6)

- ALLEN CARR ASSOCIATES of Boulder, Colorado (coastal ocean radar antennas)
- CODAR OCEAN SENSORS of Mountain View, California (coastal ocean radar systems)
- COHERENT TECHNOLOGIES of Boulder, Colorado (lidar)
- OPTICAL SCIENTIFIC, INC. of Gaithersberg, Maryland (optical rain gauges)
- + 2 more



## Product Lines Developed (18)

- AEROVIRONMENT of Monrovia, California (atmospheric acoustic sounders)
- ARCTIC SCIENCES of Victoria, British Columbia (ocean acoustic current meters)
- APPLIED TECHNOLOGIES, INC. of Longmont, Colorado (sonic anemometers)
- CAMPBELL SCIENTIFIC of Logan, Utah (optical turbulence meters)
- QUALIMETRICS, INC. of Sacramento, California (surface meteorological instruments)
- VAISALA of Helsinki, Finland (915-MHz wind profiler and RASS)
- RADIOMETRICS of Boulder, Colorado (dual-channel radiometers)
- +11 more



## CRADAS Established (1)

- PSD is currently a Cooperative Research and Development Agreement (CRADA) partner with Vaisala, of Helsinki Finland, and Sonoma Technology, Inc., of Petaluma, California “to develop and improve commercial versions of the experimental 915 MHz wind and temperature profilers .....” Established in 1991, this CRADA is one of the oldest and longest-standing in NOAA.

**National Oceanic and Atmospheric Administration**  
Earth System Research Laboratory  
Physical Sciences Division  
325 Broadway  
Boulder, CO 80305

On the web at: [www.esrl.noaa.gov/psd/technology/tech\\_transfer/](http://www.esrl.noaa.gov/psd/technology/tech_transfer/)